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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

WRITER'S CONTACT INFORMATION
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Magalie R. Salas, Secretary
Office of the Secretary
Federal Communications Commission
Washington, D.C. 20554

Attention: Patrick Forster, Senior Engineer (3-A104)
Policy Division
Wireless Telecommunications Bureau

Re: Cable and Communications Corporation
Implementation Plans of Wireless E911 Phase II Automatic Location Identification
Notice Pertaining to CC Docket No. 94-102

Dear Ms. Salas:

On behalf of Cable and Communications Corporation, we are submitting herewith its Report on Implementation of Wireless E911 Phase II Automatic Location Identification.

Please direct any questions or correspondence regarding this filing to our office.

Very truly yours,

John A. Prendergast
Richard D. Rubino

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Attachment

CABLE AND COMMUNICATIONS CORPORATION
c/o Mid-Rivers Telephone Cooperative, Inc.
904 C Avenue, P.O. Box 280
Circle, MT 59215

Magalie R. Salas, Secretary
Office of the Secretary
Federal Communications Commission
445 12th Street, SW
Washington, D.C. 20554

Attention: Patrick Forster, Senior Engineer (3-A104)
Policy Division
Wireless Telecommunications Bureau

Re: Implementation Plans of Wireless E911 Phase II Automatic Location Identification
Notice Pertaining to CC Docket No. 94-102

E911 PHASE II STATUS REPORT

Dear Ms. Salas:

In accordance with the *Third Report and Order* in Docket No. 94-102 and the Commission's related Public Notice, Mimeo No. DA00-2099 (*released* September 14, 2000), we hereby submit our report on the status of implementation plans for Wireless E911 Phase II Automatic Location Information, as follows:

a. Background/Contact Information

1) Carrier Identifying Information: Cable & Communications Corporation
TRS Number: **812411**

2) Contact Information:

John A. Prendergast, Esq.
D. Cary Mitchell, Esq.
Blooston, Mordkofsky, Jackson & Dickens
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b. E911 Phase II Location Technology Information

Cable & Communications Corporation ("C&CC") is a wholly-owned subsidiary of the Mid Rivers Telephone Cooperative, Inc. ("Mid Rivers") and operates analog cellular telephone networks in the rural service areas and under the call signs listed below.

Call Sign	*Service Area*
KNKR289	Montana 3 – Phillips
KNKR290	Montana 4 – Daniels
KNKR293	Montana 10 – Prairie

C&CC also holds F-Block broadband PCS license under the call sign WPON362 in the Billings, Montana BTA (BTA041). We have not yet determined the technology that will be used in the build-out of this PCS spectrum, or whether we will use a network based or handset based solution to comply with the E911 ALI Phase II requirement. Once such a technology is chosen for WPON362, we will file a supplemental report which will indicate the type of technology, as well as the equipment vendor, timetable for deployment, and program to ensure a successful implementation. Such report will be filed within 30 days of our implementation decision, in accordance with Rule Section 20.18(i).

C&CC's cellular service territory encompasses areas served by thirteen (13) different PSAPs, as shown on the attached spreadsheet (*see* Attachment A). While 9-1-1 call capability has been implemented in all of these jurisdictions, none of these PSAPs has requested Phase I or Phase II E911 service.

C&CC uses Nortel's DMS-MTX switching equipment in its cellular network, and it is therefore largely dependent upon Nortel for the provision and/or approval of Phase II ALI solutions to be used in its network. According to Nortel, the same network architecture is necessary to support either a handset- or network-based ALI technology with its DMS-MTX platform. This network architecture is described more fully in response to #3, below. However, Nortel recently notified us that it is still in the process of developing solutions for its DMS-MTX platform and that it would only have a limited number of shipments for the generic software release providing the core network standard functionality (J-STD-036) in mid-2001, and more general availability in the fourth quarter next year (*i.e.*, 4Q 2001). Nortel has also indicated that it "can only accommodate a limited number of simultaneous carrier requests for E911 Phase II switch provisioning... for October 2001."

C&CC takes its obligation to provide enhanced 911 services seriously and is committed to working with its equipment vendor and the public safety community to make Phase II ALI capability available to its customers as soon as practicable. However, for reasons described above, it is impossible at this time for C&CC to adequately evaluate its options for the provision of Phase II ALI service.

1. Type of Technology:

Because of the higher per pop cost of a rural buildout, and reduced expectation of revenues (due to lower population density), we must be careful in choosing the technology and signaling

format that we will use. We have been monitoring the progress of the various Phase II E911 technologies under development, and have obtained, through our consultants, basic information concerning network-based vendors such as Allen Telecom/Grayson Wireless Division, Cell-Loc, Inc./Times Three, Inc., TruePosition, Inc., U.S. Wireless Corp., and XYPOINT Corporation; and handset-based vendors such as SnapTrack, Inc. and others such as Motorola, Inc., Nokia and Ericsson. We are also aware of a handset-based technology that is reported to work with an analog cellular network, called FoneFinder (also known as the Tendler phone). C&CC is awaiting word back from this vendor about its products.

All of the above products are still under development, and we expect that all will progress significantly over the next 6 to 12 months. We believe that none of these vendors appears to be ready to promise delivery to smaller carriers of a finished product by October 1, 2001, because the vendors are likely to concentrate on the largest carriers. However, we expect that this situation will change substantially by the time we are ready to deploy Phase II technology, and we therefore believe that progress made in rolling out Phase II capabilities in urban areas will allow us to more rapidly deploy a proven technology in our less populated service area.

If we were implementing Phase II today, we would be concerned about the high cost of a network solution, as well as the problems associated with the use of triangulation and similar techniques in a rural setting, where towers are widely spaced and may be separated by uneven terrain. In particular, we have been advised by Nortel that a network solution would involve an immediate cost of $482,000 for hardware, and $2,300,000 for software. Because C&CC has approximately 2,000 subscribers, the cost of Phase II compliance with a network-based system would approach $1,400 per subscriber. We would likewise be concerned with the lack of pricing and delivery information for handset ALI technology, and the fact that GPS solutions are generally limited by the ability of the handset to have a clear line of sight to the GPS satellite (which may limit the effectiveness of E911 calls made from indoors, heavily wooded areas, etc.) Again, we are aware that the manufacturers are addressing all of these issues, and expect that they will be largely resolved by the time we deploy our system and receive a PSAP request for Phase II capability.

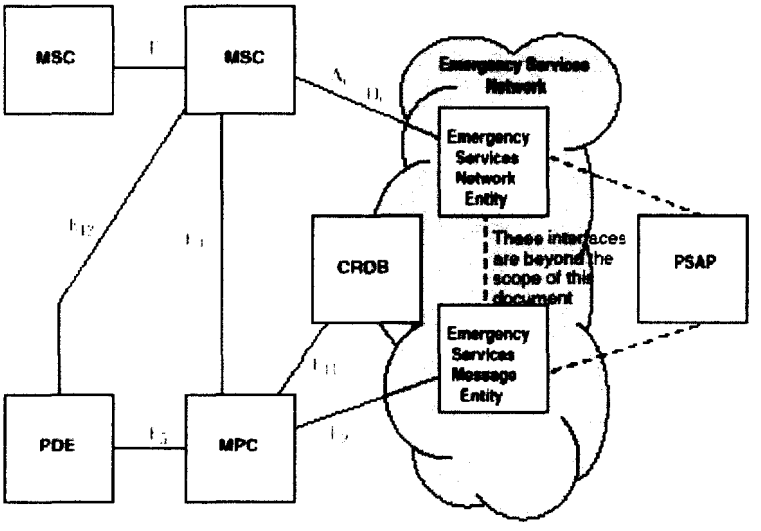
At this stage, because of the prohibitive cost of purchasing and installing a network-based Phase II solution, C&CC is inclined to select a handset-based ALI solution. C&CC has not yet selected a particular vendor of handset-based ALI technology. Out of an abundance of caution, we request a waiver of the November 9, 2000 report deadline, to the extent that it can be interpreted as requiring a choice of a particular vendor by that date. As discussed below, no PSAP in our service area is close to being able to use Phase II information.

2. Testing and Verification

Testing to verify the Phase II capability will be conducted in accordance with the Empirical Testing Method per OET Bulletin No. 71 and the equipment manufacturer's requirements.

3. Implementation Details and Schedule

According to Nortel, the specific network architecture that C&CC will need to implement to support either the handset-based or network-based location technologies in its cellular network is as follows:



MPC – Mobile Positioning Center is responsible for determining which PDE can determine the location of a E911 caller. In addition, in some signaling configurations, the MPC is responsible for providing an interface to the Emergency Services Messaging Entity (i.e. PSAP) for retrieving the location information.

PDE – Positioning Determining Entity is responsible for determining the precise position/location of the wireless handset.

CRDB – Coordinate Routing database which provides a translation between a given position and an Emergency Service Zone.

Implementation Schedule: C&CC plans to adhere to the implementation schedule established by the Commission in the *Fourth Memorandum Opinion and Order* in CC Docket 94-102. Its ability to do so will depend, in large part, on the ability of the equipment manufacturers to have their products operational and delivered on time. C&CC has requested location technology status from its handset suppliers. However, none has been able to commit to a schedule.

4. PSAP Interface

As noted in Attachment A, none of the PSAPs in our operating region has requested Phase I or Phase II service.

5. Existing Handsets

C&CC will continue to keep abreast of its current handset suppliers' ALI deployment plans. These suppliers currently include Motorola and Nokia. C&CC's subscribers will be informed beginning next year, by way of bill inserts, of the coming availability of ALI-capable handsets and given the opportunity to acquire them when available.

6. Location of Non-Compatible Handsets

Beginning with the October 1, 2001 date for starting to sell and activate ALI-capable handsets, we will use a "best practices" solution in connection with providing ALI to non-compatible handsets, assuming, of course that the PSAP is equipped to utilize Phase II ALI data. It appears that such solutions are currently in development and, at this stage, C&CC is not committed to any particular solution. It is contemplated that we will use customer mailings, bill inserts, store promotions and similar efforts to make our customers and potential customers aware of the availability and benefits of Phase II capability.

7. Other Information

In order to ensure that we timely achieve compliance with the Commission's E911 requirements, we will consult with industry sources, especially other rural telephone companies engaging in the provision of analog cellular services, to determine which solution works best for rural areas. We will then decide on a vendor and proceed to implement the chosen solution in accordance with the Commission's Rules.

We stand ready to implement Phase II E911 service in accordance with the Commission's Rules. We will remain in contact with our local PSAPs, and as necessary will update this report to keep the Commission apprised of our progress.

Respectfully submitted,

CABLE & COMMUNICATIONS CORPORATION

By _____
~~Officer~~ Assistant Manager

Dated: November 8, 2000

Attachment A

Wireless E911 – PSAP Deployment Status
Cable & Communications Corporation

WIRELESS E-911 STATUS

Name of PSAP	Counties Routing to this PSAP	Exchanges Routing to this PSAP	911 Status Wireline	E911 Status Wireline	Phase I Wireless	Phase II Wireless	Comments
Custer County PSAP- Miles City	Custer County	Rock Springs - 406/354 Fallon – 406/486 Plevna – 406/772	Implemented 911	E911 Direct Trunks	Not requested	Not requested	E911 Direct trunk routing. Not aware of their ANI/ALI status.
Dawson County PSAP -Glendive	Dawson County	Glendive – 406/377 Circle – 406/485 Fallon – 406/486 S. Wolf Point – 406/525 Lindsay – 406/584 Bloomfield – 406/583 Richey – 406/773 Lambert – 406/774 West Sidney – 406/798	Implemented 911	E911 Direct Trunks – PSAP is not using ANI/ALI	Not requested	Not requested	PSAP has not completed approved E911 Plan.
Fallon County 911 - Baker	Fallon County	Fallon – 406/486 East Carlyle – 406/588 Plevna – 406/772 Ekalaka – 406/775 Baker – 406/778	Implemented 911	Implemented E911 w/ ANI/ALI	Not requested	Not requested	PSAP is currently updating database for ALI.
McCone County PSAP - Circle	McCone County	Circle – 406/485 South Wolf Point – 406/525 Jordan – 406/557 Lindsay – 406/584	Implemented 911	Not requested	Not requested	Not requested	County has completed rural addressing and is researching ANI/ALI equipment.
McKenzie County PSAP	N/A	N/A	N/A	Not requested	Not requested	Not requested	Calls currently routed to Richland County PSAP. May change in the future.
Musselshell County PSAP - Roundup	Musselshell County	Roundup – 406/323 Melstone – 406/358 Grass Range – 406/428 Winnett – 406/429 North Ryegate – 406/575 Musselshell – 406/947	Implemented 911	Implemented E911 w/ in house ANI database.	Not requested	Not requested	PSAP is in the process of submitting final draft of E911 plan. They are working on MSAG file for ALI database.

WIRELESS E-911 STATUS

Name of PSAP	Counties Routing to this PSAP	Exchanges Routing to this PSAP	911 Status Wireline	E911 Status Wireline	Phase I Wireless	Phase II Wireless	Comments
Prairie County PSAP - Terry	Prairie County	Rock Springs – 406/354 Fallon – 406/486 Lindsay – 406/584 Terry – 406/635	Implemented 911	Not E911	Not requested	Not requested	Prairie County is working on rural addressing. No approved E911 plan to our knowledge.
Richland County PSAP - Sidney	Richland County	West Glendive – 406/687 South Wolf Point – 406/525 Savage – 406/776 Richey – 406/773 Lambert – 406/774 West Sidney – 406/798 Sidney – 406/488	Implemented 911	Not requested	Not requested	Not requested	Not aware of any approved E911 plan at this time.
Roosevelt County 911	Roosevelt	South Wolf Point – 406/525	Implemented 911	Not requested	Not requested	Not requested	Approved E911 Plan. PSAP is working on ANI/ALI database and equipment.
Rosebud County PSAP - Forsyth	Rosebud	Melstone – 406/358 Musselshell – 406/947	Implemented 911	Not requested	Not requested	Not requested	E911 committee has been meeting on the development of the database. Not aware
Tri-County - Lewistown	Fergus Petroleum Judith Basin	Grass Range – 406/428 Winnett – 406/428 Roy – 406/464 North Ryegate – 406/575	Implemented 911	Not requested	Not requested	Not requested	The are just starting to rebuild their rural addressing database
Wheatland/Golden Valley County 911	Wheatland County Golden Valley County	Ryegate – 406/568 North Ryegate – 406/575 Lavina – 406/636	Implemented 911	Not requested	Not requested	Not requested	Obtained cost from Mid-Rivers for E911 services on 8/11/2000
Yellowstone County PSAP	Yellowstone County	Custer – 406/856 Musselshell – 406/947	Implemented 911	Implemented Phase I	Not requested	Not requested	Working on updating their MSAG database